

SUBJECT

TOTAL BUILDING COMMISSIONING (TBC) INITIATIVE STATUS

PURPOSE

To provide general information on the status of the NAVFAC Total Building Commissioning (TBC) effort.

BACKGROUND

- TBC is a process for achieving, verifying, and documenting the performance of a building and its various systems to ensure they meet design intent and the owner and occupants' operational needs. The process ideally extends through all phases of a project, from concept to occupancy and operation. The basic goals of TBC are to provide a well-documented design intent, verify through testing that all systems function as required, and provide adequate documentation and training for building operators.
- EICO has been assigned the lead in incorporating TBC into the NAVFAC planning, design, & construction process.
- On 25 July 2002, a draft NAVFACINST which was prepared by EICO was presented to the Capital Improvements Business Line (CIBL) Managers at their meeting. The CIBL managers believed Commissioning buildings is a part of our mission which we should already be doing. Development of an instruction to set TBC as a new policy would send a detrimental message to existing customers. They also believed we should not ask for additional funds (SIOH) to perform these Commissioning responsibilities.
- On 20 Aug 02, RADM Johnson issued an all-hands email in support of the TBC initiative. He emphasized more consistency in the turnover process and increased communication between phases (more team like, less "disjointed"). He stated the need for a more formally defined process for TBC ("less casual") by "standardizing and consistently applying existing tools".
- On 23 Aug 02, a Web Page for TBC information was launched on the EICO web site. The site contains status information, PowerPoint presentations, related TBC documents, and links to commercial and DoD Commissioning information. The web site address is <http://www.efdlant.navy.mil/criteria/topics/Facilities/commissioning.htm>.
- The assignment of a responsible "Commissioning Authority" (CA) is a key element in accomplishing TBC. Since the CIBL manager covers both the design and construction phases of the project, we proposed the CIBL manager be designated CA for all NAVFAC projects and let the execution method for that responsibility be determined by project. On 15 October 02, EICO provided a field-reviewed final draft NAVFACINST on TBC ready for signature to the Chief Engineer's Office (CHE). The instruction provides an overall policy of what "goals" we want to achieve with the Commissioning effort and it designates the CIBL manager as the formal Commissioning Authority for all EFD/EFA projects. Most ROICC offices are not currently staffed to act as the day-to-day CA during the construction phase and, at the CIBL manager's discretion, may need contractual assistance or EFD Design Division support (preferred method) to accomplish their TBC tasks.

DISCUSSION

- Our basic premise is that TBC effort is a core technical responsibility of NAVFAC. We feel many of the actions necessary for TBC are already available in the NAVFAC process. After acceptance of the NAVFACINST, our proposed direction is as follows.
- EICO will evaluate some low effort, high payback issues which may be incorporated to improve NAVFAC building commissioning. Some preliminary actions being evaluated are maximizing the contractor's payment withholdings until system testing and training has been accepted, evaluating the proper distribution and location for OMSI material delivery (currently being evaluated by a regional engineer/public works Task Force in Norfolk, Virginia), video recording of

required system training for future reference by maintenance personnel, and make past commissioning performance an evaluation item in Design-Build Projects.

- Next EICO will develop a detailed breakdown of all tasks, roles, and responsibilities related to TBC based on current available information. A check for duplication of effort with the current NAVFAC processes and determination of the most efficient method to execute those additional tasks will be done. Then, with a large amount field input, EICO will prepare a detailed guidance document to provide methods for incorporation of the TBC goals into the NAVFAC execution process. It will be organized by project phase (i.e. planning, design, construction) and will provide references and multiple guidelines for determining the best method to accomplish TBC based on the project execution method selected. Development of this guideline will also require development of Guide Specifications support these methods.
- EICO will also continuously maintain and update the TBC website for NAVFAC use.
- We anticipate more resources may be required on the “G-line” to support added effort due to TBC.
- Current TBC specifications and functional testing requirements are predominately prescriptive documents. The current direction of the Design-Build program is to utilize performance specifications. This conflict needs to be resolved.
- Many functions of the CA are already being accomplished by the Contractor’s Quality Control (CQC) Manager during construction. Assignment of CA responsibilities and CQC responsibilities must be sharply defined to avoid confusion during construction. Increased utilization of the CQC Program may be an effective way of incorporating TBC into the construction phase of projects.

RECOMMENDATION

No recommendations. For information only.